CLAIMS

What is claimed is:

1.   A diagnostic method for performing diagnostics in a system adapted to receive modular components comprising:

a) graphically displaying a hierarchical representation of system components and modular add-on components;

b) detecting the modular components coupled to the system;

c) dynamically requesting and receiving the electrical control topology and fault status of each coupled modular component; and

d) dynamically integrating the electrical control topology and fault status of each coupled modular component into the display of a).

2.   A diagnostic method for diagnosing post-manufacture modular add-on components coupled to a system, said method comprising:

a) dynamically retrieving control system topology information not stored at the time of manufacture pertaining to a module chosen for a system graphical display;

b) via each module, generating diagnostic information about the components of a module;

c) dynamically retrieving module diagnostic information pertaining to a module chosen for a system graphical display;

d) hierarchically displaying the component levels of the module chosen for graphical display;

e) providing a link between the component levels; and

f) indicating the diagnostic status of a displayed component level.

3. The method of Claim 1, wherein a fault condition in a component of a module is indicated in the highest hierarchical level pertaining to the module.

4. The method of Claim 1, wherein for all levels lower than the highest level, all components of a level are controlled by the immediate highest level.

5. The method of Claim 1, wherein a lower level is displayed by activating a pointer on the immediately higher level.

6. The method of Claim 1, further comprising:

maintaining a count of each time the fault status of a component in a module changes; and

displaying said count.

7. The method of Claim 1, further comprising:

automatically performing c) and d) at predefined intervals.

8. The method of Claim 1, wherein a fault condition in a component of a module is indicated by color-coded indicia in the highest hierarchical level pertaining to the module.

9. The method of Claim 1, wherein said system is an image reproduction system.

10.   The method of Claim 1, wherein said system comprises the print engine of an image reproduction machine.

11.   The method of Claim 2, wherein a fault condition in a component of a module is indicated in the highest hierarchical level pertaining to the module.

12.   The method of Claim 2, wherein for all levels lower than the highest level, all components of a level are controlled by the immediate highest level.

13.   The method of Claim 2, wherein a lower level is displayed by activating a pointer on the immediately higher level.

14.   The method of Claim 2, further comprising:

maintaining a count of each time the fault status of a component in a module changes; and

displaying said count.

15.   The method of Claim 2, further comprising:

automatically performing a) and f) at predefined intervals.

16.   The method of Claim 2, wherein a fault condition in a component of a module is indicated by color-coded indicia in the highest hierarchical level pertaining to the module.

17.   The method of Claim 2, wherein said system is an image reproduction system.

18.   The method of Claim 2, wherein said system comprises the print engine of an image reproduction machine.